

I/II

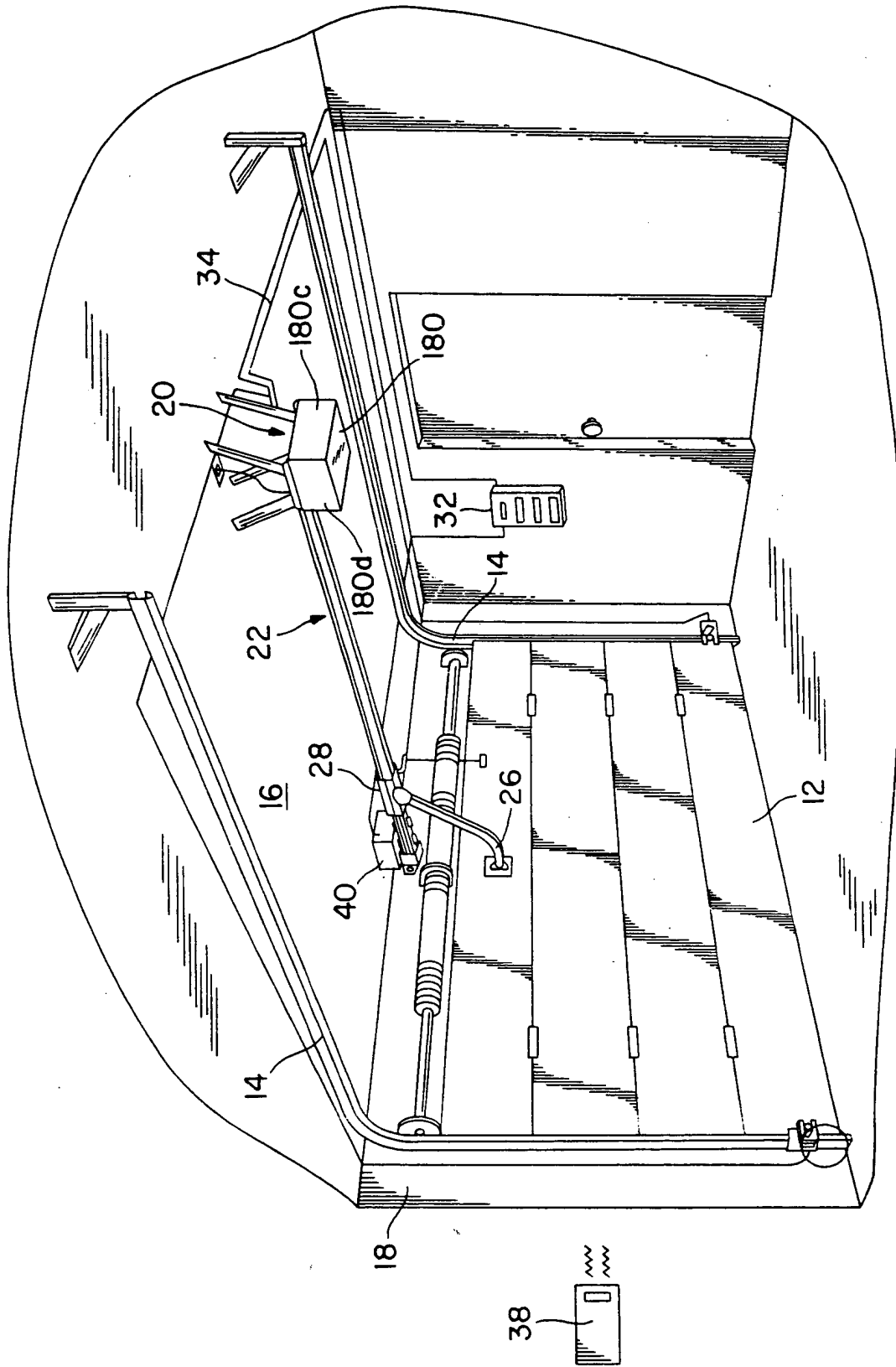


FIG. 1

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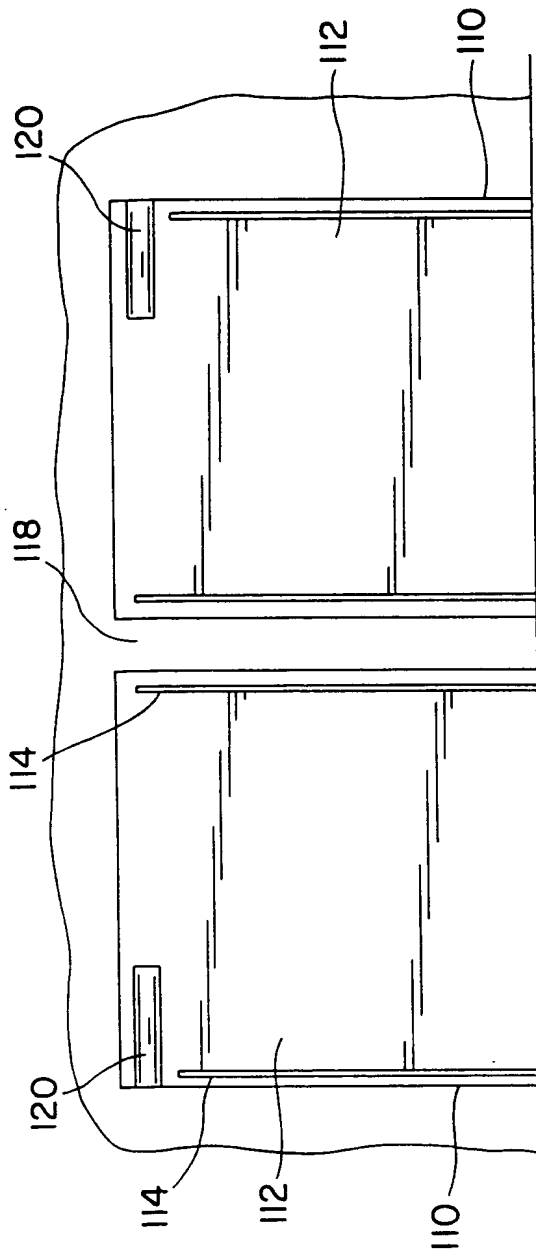


FIG. 2

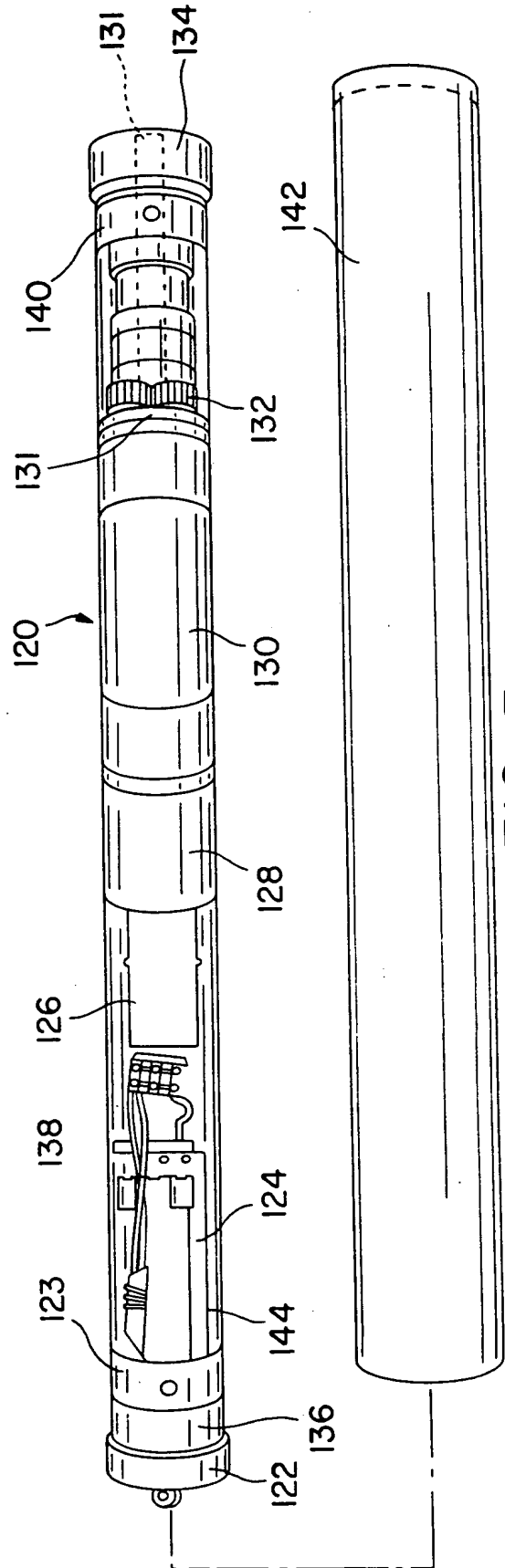


FIG. 3

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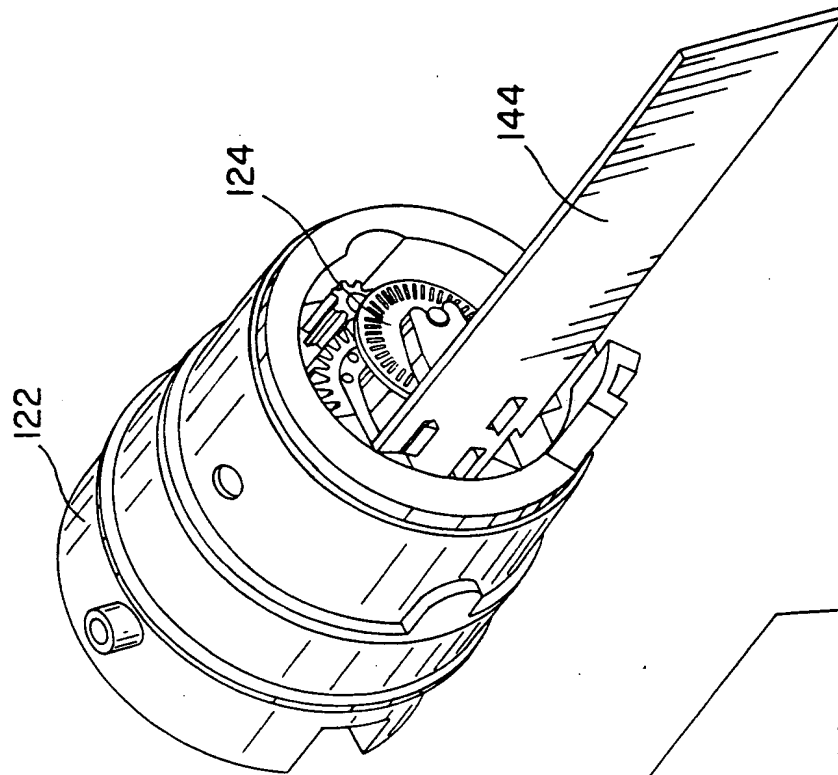


FIG. 5

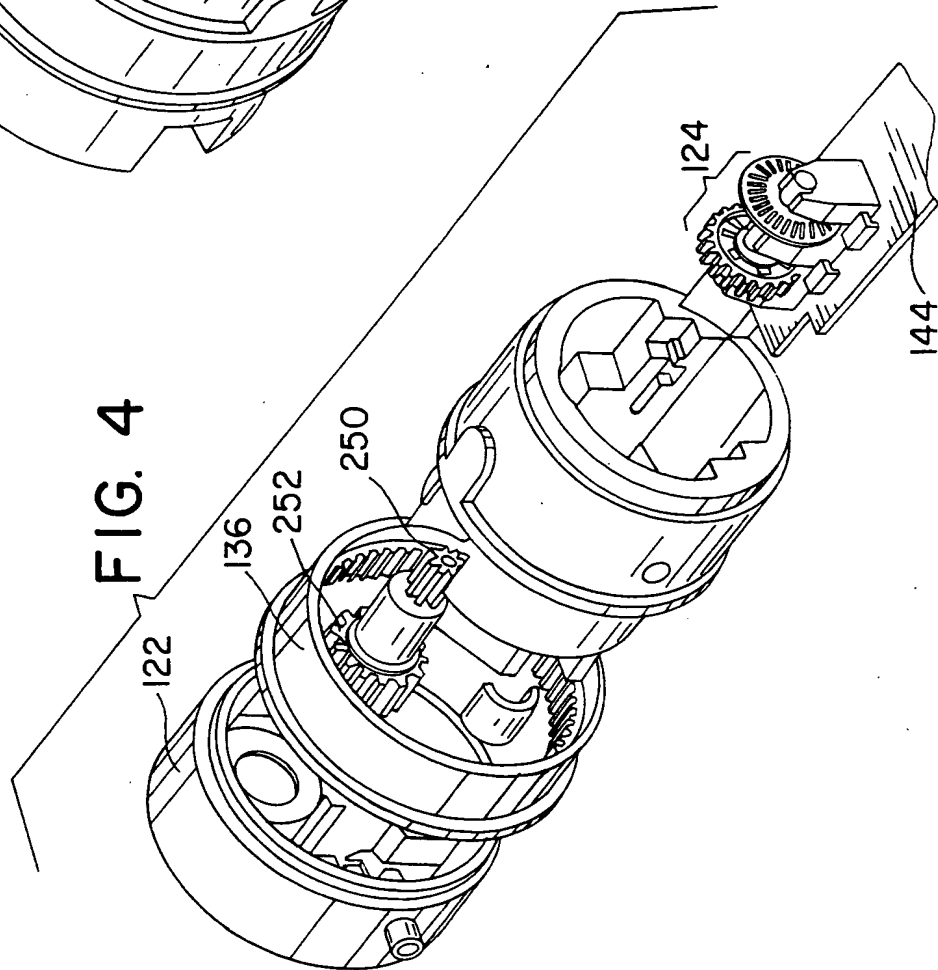


FIG. 4

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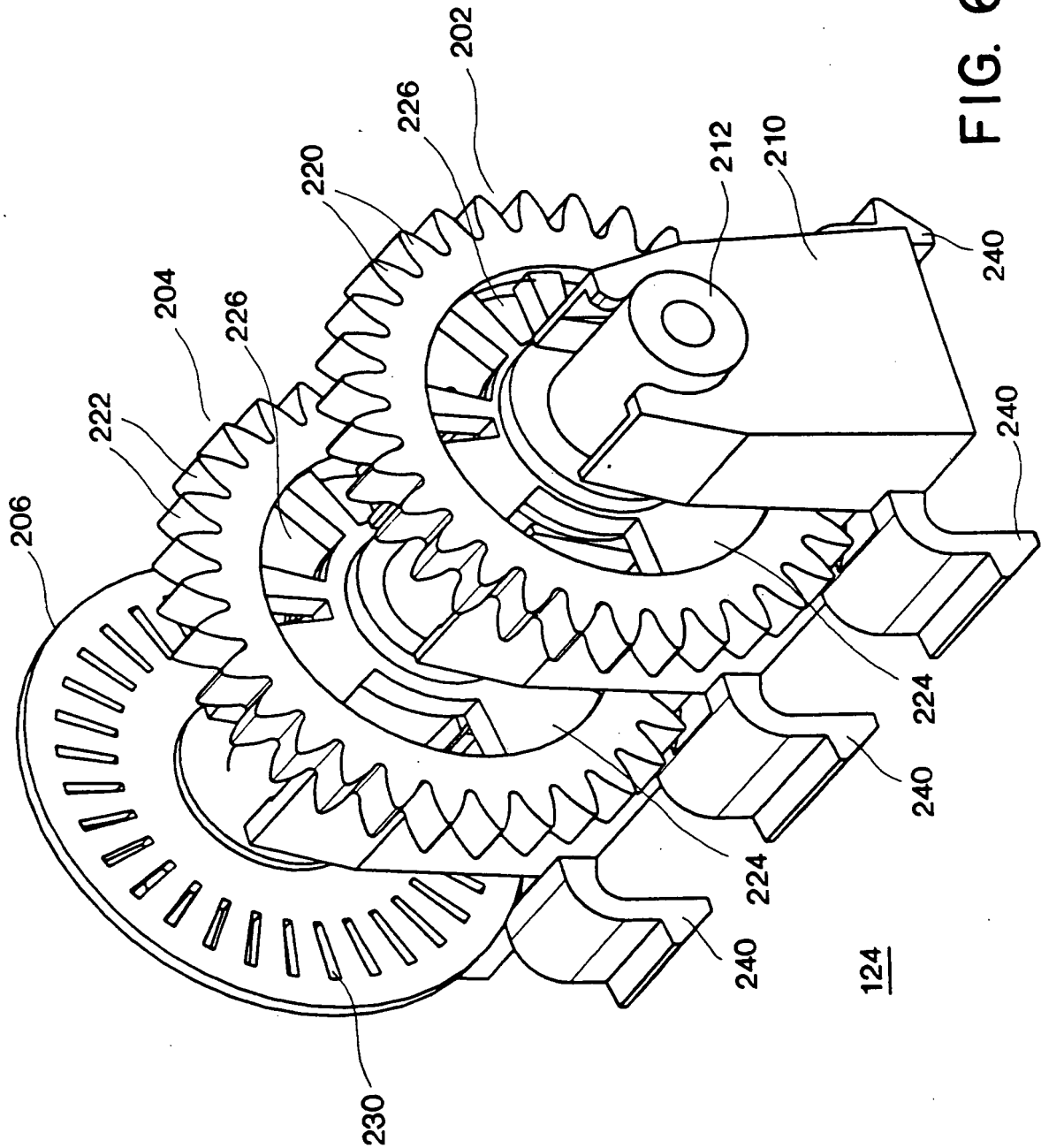
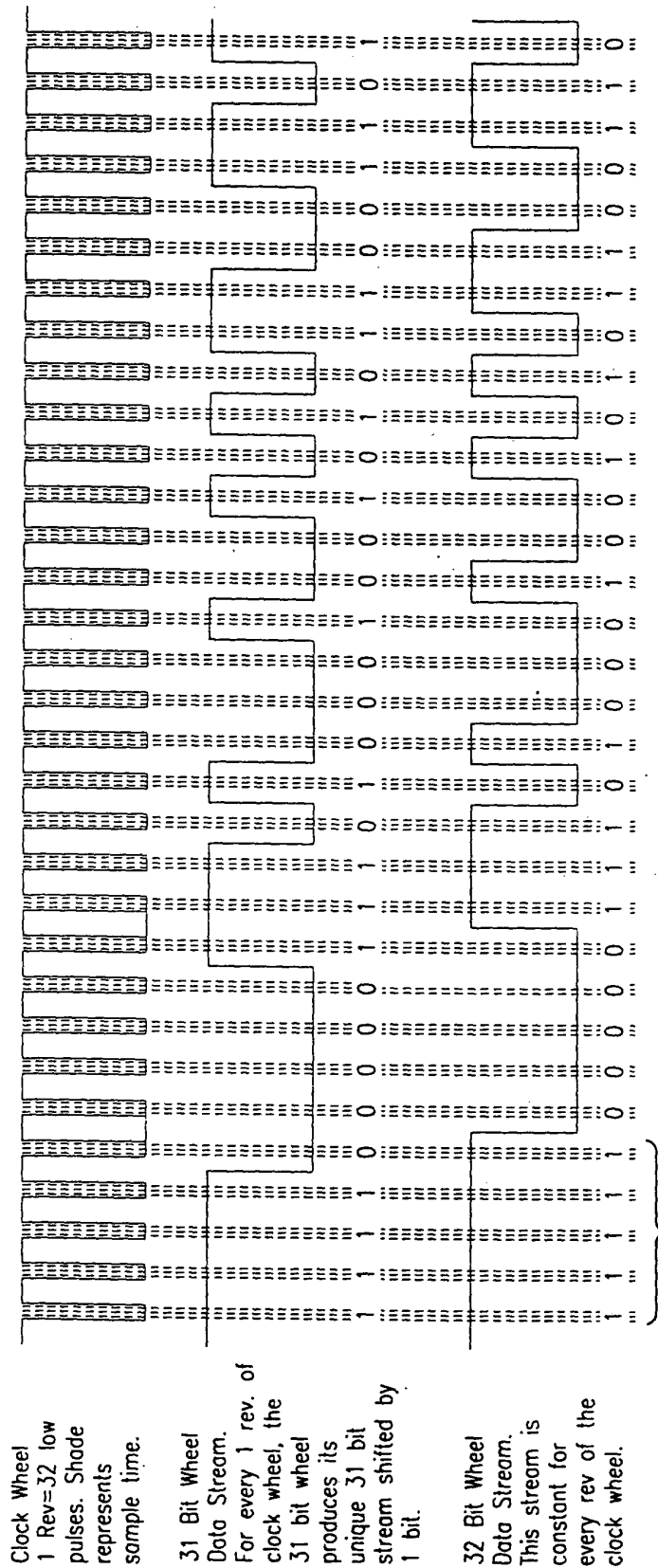


FIG. 6

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Data Streams

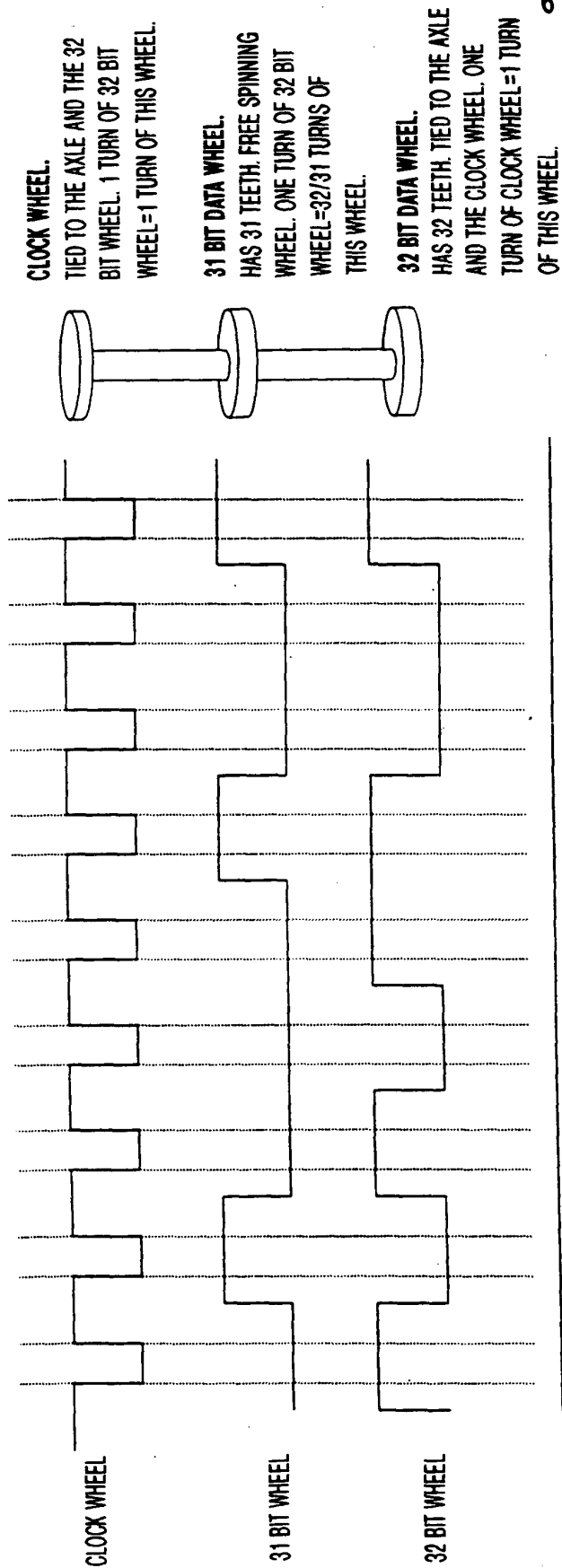


In the 32 bit stream, no five consecutive bits are repeated any where else in the stream. This is also true for the 31 data bit stream. Five consecutive bits are sampled from each wheel. The decimal value is calculated for each 5 bit binary number. The attached look-up table is used to convert each decimal number. Then a mathematical operation is performed on the two converted numbers to produce an absolute position. See the attached example and look up table.

FIG. 7

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EXAMPLE



TWO FIVE BIT DATA STREAMS

	(RESULT * 32) + LOOK-UP 2 = ABSOLUTE POSITION
DATA STREAMS	IF NEGATIVE ADD 31
DECIMAL CONV.	LOOK-UP 1 - LOOK UP 2
LOOK-UP CONV.	

$$(23 \cdot 32) + 20 = 756$$
$$-8+31=23$$
$$12-20=-8$$

010000 08 12

10101	21	20
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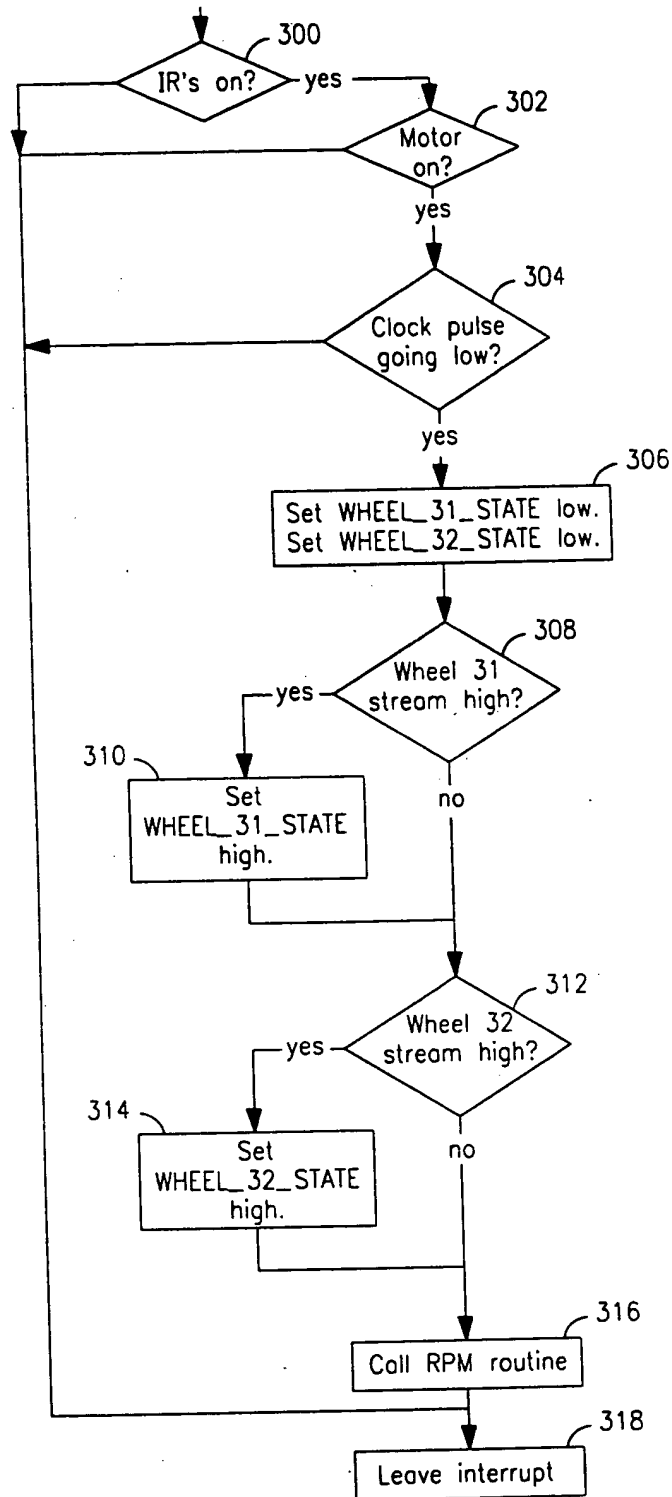


FIG. 9

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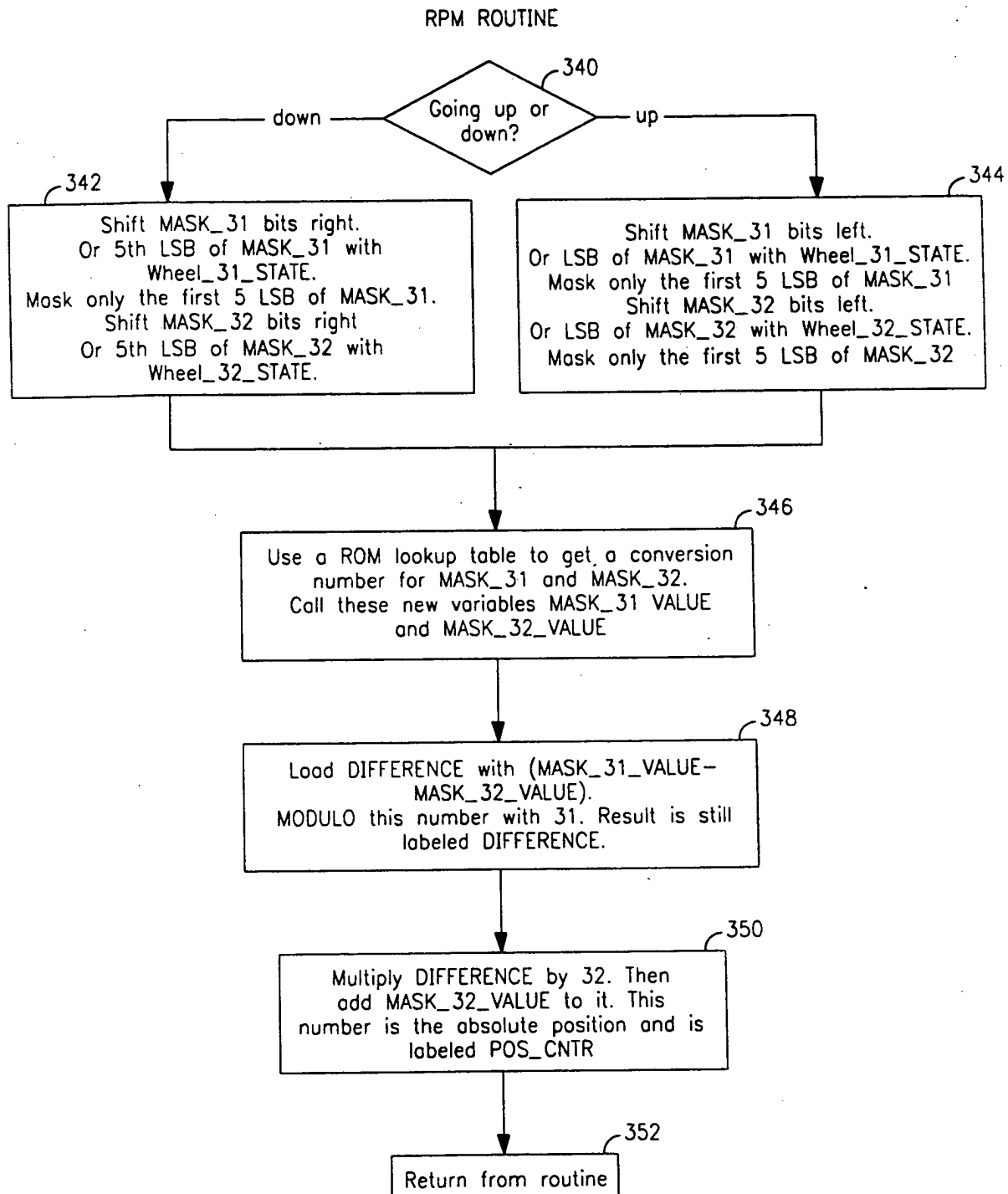


FIG. 10

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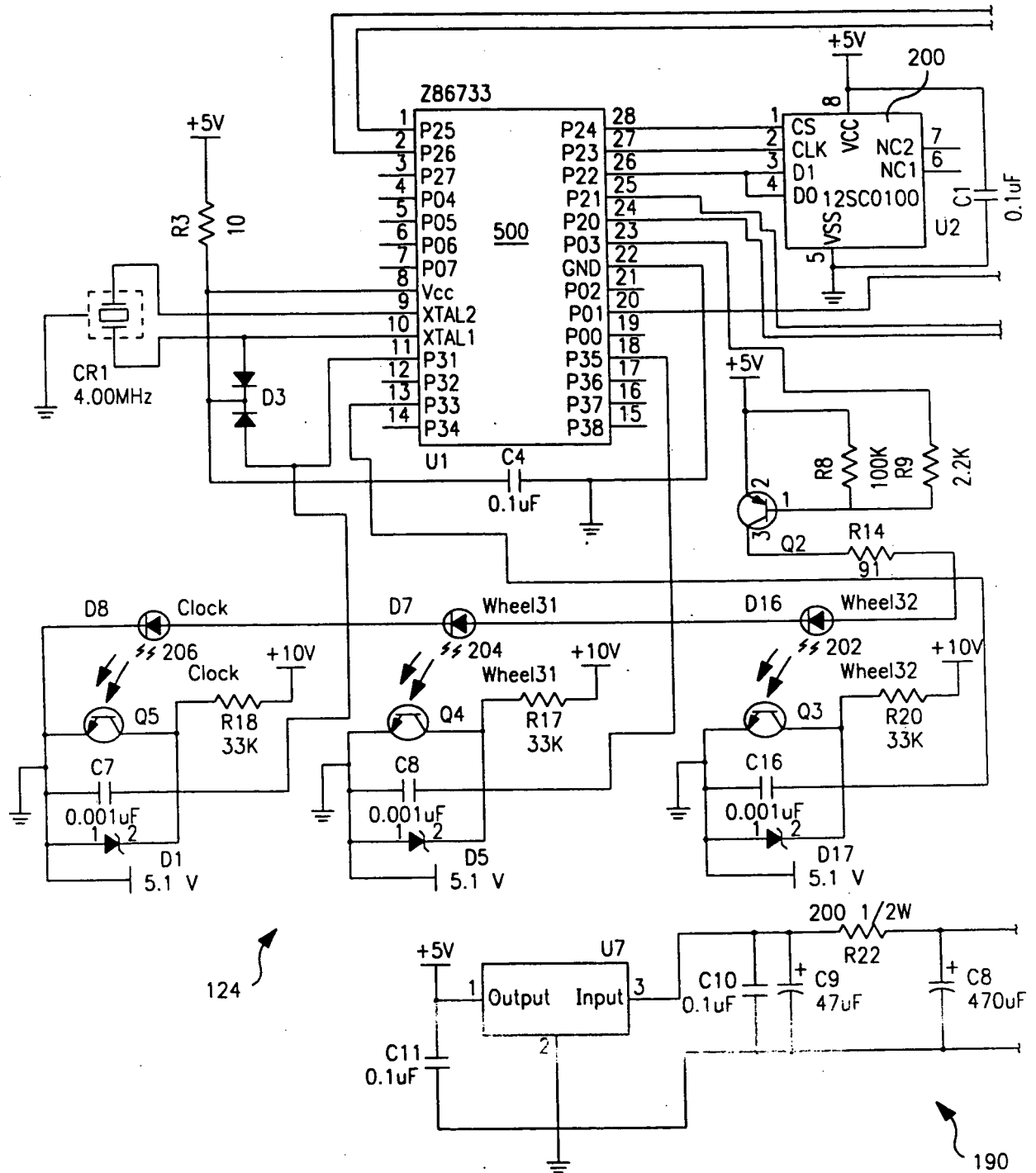


FIG. I IA

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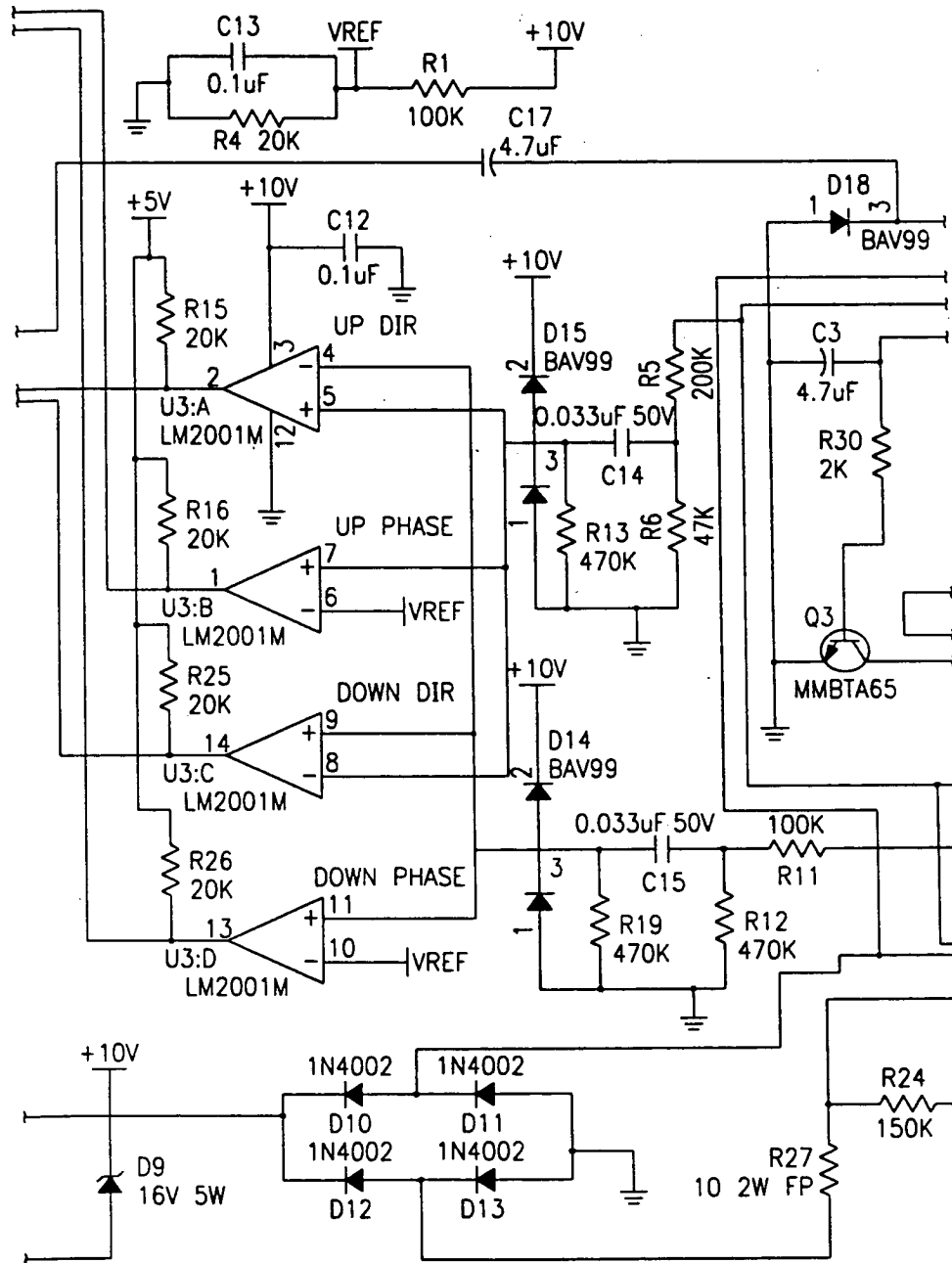


FIG. 1 IB

II / II

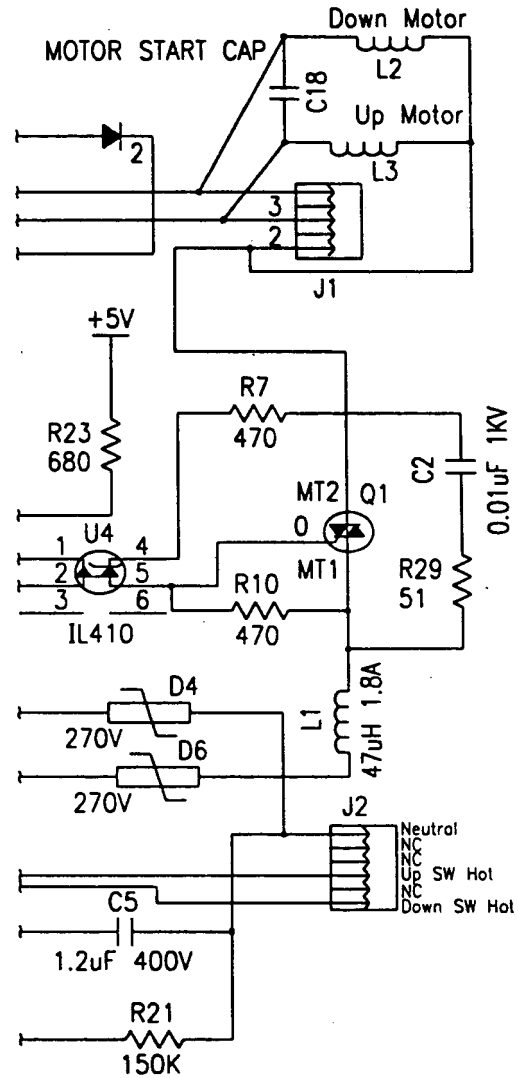


FIG. 1 IC